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<p>(21) International Application Number: PCT/US99/19443 (22) International Filing Date: 24 August 1999 (24.08.99) (30) Priority Data: 60/097,586 24 August 1998 (24.08.98) US (71) Applicant (for all designated States except US): RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY [US/US]; Old Queens, Somerset Street, New Brunswick, NJ 08903 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MARTIN, Charles, E. [US/US]; 3 Seely's Run, Somerset, NJ 08873 (US). MITCHELL, Andrew [GB/US]; 106 North 3rd Street, Highland Park, NJ 08904 (US). (74) Agents: REED, Janet, E. et al.; Dann, Dorfman, Herrell and Skillman, Suite 720, 1601 Market Street, Philadelphia, PA 19103-2307 (US).</p>		<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i></p>
<p>(54) Title: SYNTHETIC FATTY ACID DESATURASE GENE FOR EXPRESSION IN PLANTS</p>		
<p>(57) Abstract A synthetic fatty acid desaturase gene for expression in a multicellular plant is provided. The gene comprises a desaturase domain and a cyt b₅ domain, and is customized for expression in a plant cytoplasm. Methods for designing and making a synthetic fatty acid desaturase gene customized for expression in a plant cytoplasm are also provided.</p>		